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## **REMARKS**

### **I. Status of the claims**

Claims 20 and 21 are presently amended. Claims 10-21 remain for consideration.

### **II. Claim Amendments**

Claims 20 and 21 are amended in this response to address the Examiner's rejections under 35 U.S.C. §112. Claim 20 is amended by replacing the language "at least one heat exchanger between the first separator and the last separator" for the language "with heat exchangers between separators" which is previously presented and rejected by the Examiner for indefiniteness. Claim 21 is amended by changing the language "the mixing vessel" to "a mixing vessel." Both amendments are fully supported by the original disclosure.

### **III. Response to Anticipation Rejection of Claims 10-21**

The Examiner has rejected claims 20 and 21 under 35 USC §102(b) as being anticipated by Deckers et al. (WO 03/018646).

As the Examiner has correctly noticed, Deckers et al. teaches the use of isododecane as solvent for the free-radical polymerization initiators. The Examiner is also correct in observing that isododecane is an isoparaffin. However, isododecane does not meet the claimed condition of having "a boiling point equal to or less than 160°C." This becomes clear by looking to Applicants' Comparative Example A where, under conditions identical to those in Example 1, isododecane was used instead of an isoparaffinic solvent with a boiling range from 116 to 134°C. For the Examiner's quick review, Applicants have enclosed in this response a Material Safety Data Sheet which shows that isododecane has a boiling point in the range from 178 to 183°C. Applicants respectfully note that

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using isododecane as a solvent for the free-radical polymerization initiators is outside the scope of the present claims.

The Examiner has also correctly noticed that Deckers et al. teach recycling unreacted ethylene and any unreacted comonomer. This corresponds to Applicants' separating the ethylene homopolymer or copolymer from unpolymerized ethylene and optionally comonomers in a high-pressure and at least one low-pressure stage and re-circulating the ethylene and optional comonomers to the high-pressure tube reactor in a high-pressure circuit and a low-pressure circuit. However, Deckers et al. does not teach that the solvent of the free-radical polymerization initiator is isolated in the low-pressure re-circulating circuit and reused for dissolving fresh free-radical polymerization initiator.

Applicants, therefore, believe claims 10-21 cannot be anticipated by Deckers et al. and respectfully request that the Examiner withdraw the rejections and allow remaining claims 10-21. Applicants invite the Examiner to telephone their attorney, Shao-Hua Guo, at (610) 359-2455 if a discussion of the application might be helpful.

Respectfully submitted,  
Andrei Gonioukh et al.

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**Customer Number: 24114**

Enclosure: MSDS of Isododecane

Personalformulator.com  
97 S. Red Willow Rd.  
Evanston, WY 82930  
US 1-800-426-2457 Ext. 1003



## Material Safety Data Sheet

### Isododecane

Last Revised: 11/24/08

#### 1. Product Identification

**Product Name:** Isododecane  
**INCI Name:** Isododecane  
**Chem. N.:** No data  
**Ingredient(s) & CAS Number(s):** 13475-82-6  
**Ingredient(s) & EINECS Number(s):** No data

#### 2. Physical and Chemical Properties

**Melting Point:** -114°F (-81°C)  
**Boiling Point:** 352-361°F (178-183°C)  
**Evaporation Rate:** No data  
**Specific Gravity:** 0.740-0.755  
**Solubility in Water:** Negligible (0.1 g/l)  
**pH Value:** No data  
**Appearance & Odor:** Clear, colorless liquid, slight petroleum odor

#### 3. Stability and Reactivity

**Chemical Stability:** Stable  
**Incompatibility:** None known  
**Hazardous Decomposition:** During a fire CO, CO<sub>2</sub>, and other potentially toxic fumes  
**Hazardous Polymerization:** Will not occur

#### 4. Handling and Storage

Keep container closed when not in use. Keep away from heat, sparks, and flames. Avoid vapor or mists that might be related upon heating.

#### 5. Accidental Release Measures

Keep public away. Eliminate source of ignition. Shut off sources, if possible do so safely. Prevent liquid from entering sewers, watercourses or low areas. Advise authorities if material has entered a sewer or watercourse or has contaminated soil or vegetation. Absorb/absorbent and shovel into enclosed container and dispose of correctly.

#### 6. Exposure Controls & Personal Protection

**Respiratory Protection:** Not required  
**Eye Protection:** Chemical splash goggles  
**Protective Clothing:** Usually not needed. Use gauntlet type gloves  
**Engineering Controls:** Usually not needed  
**Other Protective Measures:** Keep work place clean; wash hands frequently.

#### 7. Hazards Identification

**General:** Prolonged skin contact may irritate and cause dermatitis. If swallowed nausea may be experienced.  
**Inhalation:** No data  
**Eye Contact:** No data  
**Skin Contact:** No data  
**Ingestion:** No data

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**Exposure Guidelines:** No data

#### 8. First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes.  
**Skin:** Wash skin with plenty of water; remove contaminated clothing.  
**Inhalation:** Remove to fresh air. If breathing is difficult give oxygen.  
**Ingestion:** No data  
**Physician's Note:** No data

#### 9. Fire Fighting Measures

**Flash Point:** 109°F (43°C)  
**Auto-Ignition Temp:** No data  
**Extinguishing Media:** Extinguish preferentially with dry chemicals, foam water spray.  
**Fire Fighting Procedures:** Caution! This product is flammable. Firefighters should wear full protective clothing including a self-contained breathing apparatus.  
**Fire and Explosion Hazards:** Fumes, smoke and carbon monoxide (CO)

#### 10. Toxicological Information

**Acute Oral LD50:** No data  
**Dermal and Eye Irritation Test:** No data  
**Carcinogenicity:** No data  
**Mutagenicity:** No data

#### 11. Disposal Considerations

Dispose of in accordance with all state, local, and federal regulations.